



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,190	07/09/2001	Daisuke Inagaki	3140-005	6014
33432	7590	07/15/2004	EXAMINER	
KILYK & BOWERSOX, P.L.L.C. 53 A EAST LEE STREET WARRENTON, VA 20186			CHANG, JON CARLTON	
		ART UNIT	PAPER NUMBER	
		2623	4	
DATE MAILED: 07/15/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/901,190	INAGAKI, DAISUKE
	Examiner Jon Chang	Art Unit 2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,4,7,9,10,12,13,15 and 17-19 is/are rejected.
- 7) Claim(s) 2,5,6,8,11,14,16 and 20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 09 July 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-4, 10, 12-13, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,333,992 to Yamamura et al. (hereinafter "Yamamura").

As to claim 1, Yamamura discloses an apparatus for determining an image processing parameter used for detecting an image of an object from a real picked-up image containing the image of the object, said apparatus comprising:

a capture section for capturing the real picked-up image (Fig.1, element 3; column 7, lines 7-9);

a generation section for processing the captured real picked-up image to generate a pseudo image on which change in image pickup conditions relative to the real image is reflected (Fig.1, element 5; column 7, lines 15-24; column 7, line 66 to column 8, line 3; the "simulating image data" is a pseudo image);

a detection section for detecting the image of the object from the pseudo image using an image processing parameter (column 7, lines 52-61); and

a change section for changing the image processing parameter so that the image of the object is not erroneously detected when said detection section erroneously

detects the image of the object from the pseudo image (column 12, lines 43-46; column 13, lines 16-23; column 13, lines 34-38; column 13, lines 55-65; column 14, lines 5-10; the parameters are optimized to prevent erroneous judgment).

As to claim 3, Yamamura discloses the apparatus as claimed in claim 1, further comprising:

an input section for inputting the image processing parameter used in said detection section (the image processing parameters are in element 18 of Fig.1; a section for inputting the parameters is inherent because the parameters must be input into element 18 somehow),

wherein said change section changes the image processing parameter automatically without re-input of the image processing parameter (Fig.9, element 45; column 12, lines 43-45).

As to claim 4, Yamamura discloses the apparatus as claimed in claim 1, further comprising:

a first calculation section for calculating a detection error of the image of the object contained in the pseudo image using the image processing parameter (column 13, lines 16-23),

wherein said change section changes the image processing parameter so that the detection error satisfies a predetermined detection accuracy when the detection error does not satisfy the predetermined detection accuracy (column 13, lines 33-38; column 14, lines 5-7).

With regard to claims 10, 12 and 13, remarks analogous to those presented above for claims 1, 3 and 4 are applicable.

As to claim 18, the discussion provided above with respect to claim 1 is applicable. The recording medium is, for example, the ROM or RAM (column 7, lines 40-42, and column 8, lines 5-8). The program is discussed at column 7, lines 41-42, and column 8, lines 5-9). The CPU, ROM, RAM, etc., make up the computer.

As for claim 19, see the remarks provided above for claim 4.

3. Claims 7, 9, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,360,003 to Doi et al. (hereinafter "Doi").

Regarding claim 7, Doi discloses an apparatus for determining an image processing parameter used for detecting an image of an object from a real picked-up image containing the image of the object, said apparatus comprising: a capture section for capturing the real picked-up image; a detection section for detecting the image of the object from the captured real picked-up image using a image processing parameter (Fig.5, element 11; column 9, line 48); and

a change section for changing the image processing parameter so that at least one of a detection error and a detection processing time obtained when the image of the object is detected by said detection section satisfies at least one of a predetermined detection accuracy and a predetermined reference time (column 9, lines 11-14; column

9, lines 56-57; column 10, lines 15-18; column 10, lines 24-18; "precision" corresponds to accuracy, and the process "timing" or "rate" corresponds to reference time).

With regard to claim 9, Doi discloses the apparatus as claimed in claim 1, further comprising:

an input section for inputting the image processing parameter used in said detection section (in element 12 of Fig.5, an input section for inputting the image processing parameter is inherent because the image processing parameters must be input somehow),

wherein said change section changes the image processing parameter automatically without re-input of the image processing parameter (column 9, lines 12 and 56-57).

With regard to claims 15 and 17, remark analogous to those presented above for claims 7 and 9 are applicable.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 10 and 18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6, 14 and 20 of copending Application No. 09/901,298. Although the conflicting claims are not identical, they are not patentably distinct from each other because Instant claims 1, 10 and 18 cover the same subject matter as claims 6 (as it depends from claim 1, 14 (as it depends from claim 9) and 20 (as it depends from claims 17-19) of the copending application, but are merely broader recitations of the invention. The "pseudo image" in the instant claims corresponds to the "second image" in the claims of the copending application..

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Allowable Subject Matter***

6. Claims 2, 5-6, 8, 11, 14, 16 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***References Cited***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application Publication US 2002/0145112 to Davidson discloses a method and system for increasing the efficiency and reducing the time required for defect inspection in which the sensitivity of the defect inspection process can be controlled by adjusting the image processing parameters that are used to compare the acquired and reference images.

U.S. Patent 6,473,535 to Takaoka discloses an image processing apparatus and method in which density conversion conditions for a simulation image can be changed by an operator.

U.S. Patent 6,583,413 to Shinada et al. discloses a method of inspecting a circuit pattern in which image processing parameters are modified to ensure detection of a defect.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jon Chang  
Primary Examiner  
Art Unit 2623

Jon Chang  
July 12, 2004